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BY

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DESCRIPTIONS OF THREE NEW NORTH AMERICAN ANTS, WITH BIOLOGICAL NOTES.*

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At the present time 119 species of ants have been recorded for Mississippi. Of this number 11 species, or 9.1 percent, are new. These new species have been found within the following genera: *Aphaenogaster*, *Stenamma*, *Pheidole*, *Myrmica*, *Leptothorax* and its subgenus *Dichothorax*, and the subgenus *Colobopsis* of the genus *Camponotus*. Although considerable collecting for ants has been done in some sections of the state, there are other sections which have been practically untouched.

An interesting coincidence is that the species of *Myrmica* and *Stenamma* described below are so far the sole representatives in Mississippi of these two genera. The species of *Stenamma* is of more than casual interest since it is the fourth species to be described for North America. The other three species are as follows: *nearcticum*, a western form, which is known only from the male and female phases; *manni*, a Mexican species; and the common *brevicorne* with its various subspecies and varieties. Whether the new species herein described is allied to *nearcticum* or not can only be settled when workers are collected of *nearticum*, or when the male and female phases of *foveolocephala* are found.

The writer is under obligation to Dr. W. M. Wheeler for his opinion concerning the taxonomical status of several of the ants described below.

Myrmicinæ.

Stenamma fovolocephala sp. nov.

Worker.—Length: 3.6–3.9 mm.

Head, excluding mandibles, distinctly longer than broad, with feebly emarginate almost straight posterior border, rounded posterior angles, and gently convex sides. Eyes large, oval, moderately convex, placed at a distance from the base of the mandibles about equal to or slightly surpassing their greatest diameter; each eye with about 7 ommatidia in its greatest diameter. Mandibles well developed, triangular, somewhat flattened dorsally; each with 5 or 6 distinct teeth. Clypeus moderately convex, protuberant and with the usual

*A contribution from the Mississippi Agricultural Experiment Station.

longitudinal keels or carinæ. Frontal area distinct, subtriangular. Antennæ 12-segmented; scapes moderately robust, not attaining the posterior border of the head; funiculus gradually enlarging distally, the last four segments very noticeably so. Prothorax and mesothorax fused together in such a manner that the suture separating them is almost obsolete; viewed laterally the two form a very gently convex, almost straight continuous surface. Mesoepinotal constriction very distinct, rather broad and fairly deep, separating the pro-mesothoracic region from the lower declivous, basal surface of the epinotum. Epinotal spines viewed in lateral profile small, acute, broader than long, directed backward and outward but scarcely upward. Anterior surface of petiole almost vertical, meeting the superior surface in a rounded yet distinct angle, which is almost a right angle. Postpetiolar node longer and more robust than the petiolar node, and rather strongly convex dorsally; viewed from above, it is somewhat subcampanulate in outline. Gaster from above oval, with rather rounded, indistinct, humeral angles.

Mandibles, lateral border of clypeus, frontal area, legs exclusive of the tarsi, declivous surface of the epinotum, and the gaster, more or less smooth and shining. Dorsal surface of the head, excluding the cheeks and anterior borders, foveolate-reticulate. Thorax rather irregularly rugulose; anterior border of the pronotum, and dorsal surfaces of the mesonotum and epinotum with transverse rugulæ; pleuræ of the pro- and metathorax with longitudinal rugulæ; the mesopleuræ foveolate-punctate. Petiole and postpetiole irregularly rugulose-reticulate with finely punctate interspaces.

Pilosity yellowish; moderately abundant, suberect, longest on the clypeus and gaster. Pubescence of same color as the pilosity, covering all parts of the body, but not obscuring the surface.

Very dark brown, closely approaching black; mandibles, clypeus, antennæ, legs, and gaster from posterior border of first segment to apex, yellowish.

Described from two workers which were collected from sandy soil on the south slope of a thinly wooded hillside two miles south of Ackerman, Mississippi, on February 8, 1930. Cotypes are in the collection of the Department of Entomology of the Mississippi A. & M. College and my collection.

Since no worker phase has been taken of *nearcticum*, a western species, I have not been able to compare my specimens with this species. From *Stenamma brevicorne* and its various forms my specimens differ in the following particulars: (1) larger eyes (which have 6–7 large ommatidia in their greatest diameter); (2) the reticulate-foveolate sculpturing of the head; (3) the transverse rugulæ on the basal surface of the epinotum; (4) the longer and somewhat subcampanulate shaped postpetiole; (5) the deeper body coloration; and (6) by the more highly glabrous surface of the head and thorax.

Myrmica schencki spatulata var. nov.

Worker.—Length: 4.3–4.6 mm.

Head, excluding mandibles, distinctly longer than broad, with rounded posterior border and posterior angles, and convex sides. Eyes prominent, oval, convex, placed at a distance from the mandibles greater than their largest diameter. Mandibles well developed, triangular, with 7 or 8 distinct teeth, the apical 3 the most strongly developed. Clypeus strongly convex; viewed laterally, it is decidedly

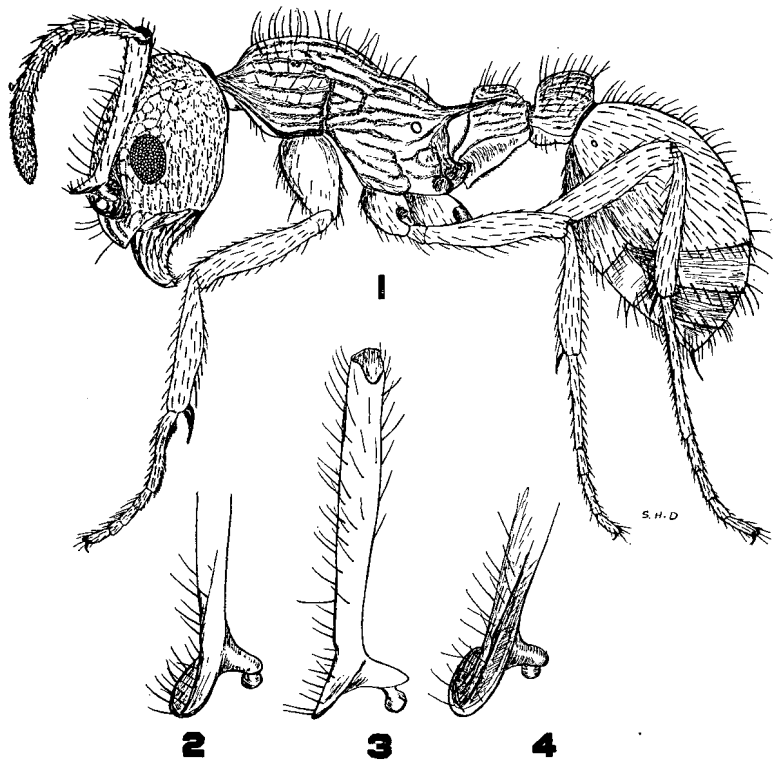

FIG. 1. Lateral view of a worker of *Myrmica schencki* var. *spatulata.*
FIGS. 2, 3, 4. Various views of the very large and strikingly spatulate-shaped lobe at the base of the antennal scape of the worker.
(All greatly enlarged. Illustrations by Mrs. S. H. DeBord.)

protuberant. Frontal area triangular, impressed. Antennæ 12-segmented; scapes robust, surpassing the posterior border of the head, each with a very large lobe at its base, which when viewed from above is very large and strikingly spatulate in outline; funiculus each with the last 3 distal segments enlarged but scarcely forming a distinct antennal club. Thorax viewed laterally with a distinct pro-mesonotal suture, the meso-epinotal region strongly impressed dorsally, less so laterally, but not

forming a distinct suture. Epinotal spines long and acute, directed backward and upward, the spines about as long as the face of the declivity of the epinotum. Petiole viewed in lateral profile with flattened superior surface which meets the anterior surface in an almost distinct right angle; below with a short, blunt, anteriorly projecting spine. Post-petiole viewed from the same profile as the petiole, wider dorso-ventrally than antero-posteriorly. Gaster from above oval, the apex with a distinct sting.

Mandibles, clypeus, frontal area, declivity of epinotum, appendages and gaster shining; remainder of body subopaque. Mandibles coarsely and longitudinally striated; clypeus similarly sculptured. Head coarsely rugulose-reticulate with finely punctate interspaces. Thorax and petiole coarsely rugulose, the rugulæ with a distinct longitudinal trend.

Pilosity yellow; coarse, suberect to erect, moderately abundant over all parts of the body, more reclinate on the legs. Pubescence of the same color as the pilosity, closely appressed to the body and so sparse as not to obscure the surface.

Color highly variable in different specimens, in general, yellowish-brown to reddish-brown; appendages lighter, gaster black. The dorsum of the head, thorax, petiole and postpetiole more or less irregularly infuscated and as a rule darker than the rest of the body except the gaster.

Female.—Length: 5.5–6 mm.

Very similar to the worker in all respects but proportionally larger. The head bears three not very distinct ocelli, which are arranged in a nearly equilateral triangle. The sculpturing of the body although similar to that of the worker is much coarser. On the thorax, especially the sides, the rugulæ are regular, almost equi-distant, and have a longitudinal trend.

Pilosity and pubescence hardly distinct from that of the worker.

Color much deeper than that of the worker; dark reddish-brown, with the infuscation on the dorsal surfaces of the body darker, thus giving the ant from above a blackish appearance.

Described from 6 workers and 4 dealated females, all of which were taken from a nest in the soil in a low heavily-wooded area, subject to occasional inundations, 5 miles west of Starkville, Mississippi. Cotypes in the collections of the Department of Entomology of the Mississippi A. & M. College, the collection of Dr. W. M. Wheeler, and my collection.

Formicinæ.

Camponotus (Colobopsis) obliquus sp. nov.

Soldier.—Length: 3.5–3.75 mm.

Head subcylindrical, somewhat longer than broad, with subparallel sides, rounded posterior border, and rounded posterior angles. The anterior truncated surface decidedly oblique, only faintly concave, its

edges carinate along the sides but rounding off above in the clypeal and adjoining regions. Mandibles small, with flattened upper surfaces, each with 4 distinct teeth and a short, toothless, proximal portion. Clypeus on the truncated surface sub-rectangular, somewhat longer than broad, not very noticeably broader above than below; viewed laterally the clypeus is slightly raised above the surface of the cheeks and mandibles. Frontal carinæ far apart, diverging posteriorly for the greater part of their length, then paralleling each other for the remainder of the space. Eyes moderately large, sub-elliptical, gently convex, situated on the posterior half of the head. Antennæ 12-segmented; scapes curved, gradually enlarging distally, and extending a slight distance beyond the posterior corners of the head. Thorax robust. Prothorax and mesothorax when viewed in lateral profile forming a long, gentle arch. Mesoepinotal suture distinct. Base of epinotum cleft; viewed laterally the base appears flattened and slightly shorter than the concave declivous surface, which it meets in a very pronounced angle. Petiole low, convex in front and above, flattened behind, the posterior dorsal border impressed centrally. Gaster oval.

All of the head except that posterior to the eyes opaque, very coarsely reticulate-rugose with punctate interrugal spaces; remainder of head finely shagreened, smooth and shining as is also the thorax, petiole and gaster.

Cheeks and anterior dorsal surface of the head with short, erect, blunt, yellowish hairs. Erect but rather sparse hairs on the vertex of the head, the gastric segments, especially the posterior edges, and a few on the tips of the antennal scapes and femora.

Anterior half of head reddish-brown; posterior half black; funicular segments infuscated. Thorax, legs, and petiole brown. Gaster black; in some specimens the first and second segments are tinged with yellow.

Described from three soldiers which were nesting in a cavity in the husk of a hickory nut, *Caryæ* sp. The nut from which the specimens came was gathered by Mr. J. M. Langston in a low pasture, five miles southwest of Starkville, Mississippi.

One cotype each in the collection of the Department of Entomology of the Mississippi A. & M. College, the collection of Dr. W. M. Wheeler, and my collection.

This species is distinct from any of the other North American *Colobopsis* which I have yet seen. With respect to the shape of the head of the soldier (that is, its parallel sides) it would appear to be allied to *C. impressus*. It differs from the latter species, however, in many respects, notably: (1) its much smaller size, (3.5–3.75 mm.); (2) the much coarser sculpturing of the head; (3) the less concave, truncate surface of the head; and (4) the more rectangular shaped clypeus.